



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------------|-------------|----------------------|---------------------|------------------|
| 10/735,902 | 12/16/2003 | Yoichi Takada | 03500.017554 | 3909 |
| 5514 | 7590 | 10/22/2004 | EXAMINER | |
| FITZPATRICK CELLA HARPER & SCINTO | | | SHAH, MANISH S | |
| 30 ROCKEFELLER PLAZA | | | ART UNIT | |
| NEW YORK, NY 10112 | | | PAPER NUMBER | |
| | | | 2853 | |

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/735,902 | Applicant(s) TAKADA ET AL. | |
| | Examiner Manish S. Shah | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-10 & 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Koyano et al. (# US 2003/0064206).

Koyano et al. discloses an image recording method for forming image on recording medium, wherein an ink set including a coloring material in a state dissolved or dispersed in an aqueous medium ([0161]-[0174]) and a water-based reactive liquid (pretreatment liquid) (see Abstract) containing a first component (multivalent metal ion) for insolubilizing or aggregating the coloring material in the ink by mixing with the water-based ink ([0116]), wherein the water based reactive liquid contains a water soluble high molecular compound and buffer in a state dissolve therein ([0118]-[0122]), the water-based ink contains a second component (strong acid ion) ([0206]), which is not insolubilized by the first component and the coloring material, in a state dissolved therein, and the water soluble high molecular compound is not insolubilized by the first component and the coloring material but insolubilized by the second component

Art Unit: 2853

([0161]-[0162])). They also disclose that the first component is a cationic substance and a polyvalent metal ion, wherein the polyvalent metal is selected from Ca, Al, Ba, Mg, Zn ([0116]-[0117])). They also disclose that the coloring material in the ink contains either an anionic dye ([0162]-[0164]) or a pigment with an anionic dispersing agent ([0172]-[0175])). They also disclose that the water-soluble high molecular compound has a hydroxyl group, which includes a polyvinyl alcohol ([0191]-[0193])). With respect to claims 13-14, they disclose a process for forming an image on a recording medium including the steps of applying a water-based reactive liquid (pretreatment liquid) on the recording medium and then applying water-based ink thereon (figure: 1, 2). They also disclose that the water based reactive liquid applied on the whole recording medium and then applying the water-based ink according to image data (see Examples).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyano et al. (# US 2003/0064206) in view of Tanimoto et al. (# JP 2000-136336 A).

Koyano et al. discloses the all the limitations of the claimed invention except that the water-soluble high molecular compound has an acetoacetyl group.

Tanimoto et al. teaches that to get the water resistance and the solvent resistance printed image, the water-based composition has a vinyl alcohol polymer has a hydroxyl group and the acetoacetyl group (see Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the water-soluble high molecular compound of Koyano et al. by the aforementioned teaching of Tanimoto et al. in order to have the water resistance and the solvent resistance coating layer on the recording medium.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyano et al. (# US 2003/0064206) in view of Mihoya et al. (# JP 07-034008 A).

Koyano et al. discloses the all the limitations of the claimed invention except that the second component is an adipic dihydrazide.

Mihoya et al. teaches that to get the excellent storage stability, a water resistance and good pigment dispersion, the water-based coating composition (water-based ink composition) includes the adipic dihydrazide (see Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the water-based ink composition of Koyano et al. by the aforementioned teaching of Mihoya et al. in order to have the ink composition with good pigment dispersion and the excellent storage stability, and it gives the water resistance printed image.

Response to Arguments

4. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah
Examiner
Art Unit 2853


MSS
10/20/04